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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/781,228	02/18/2004	Floyd Backes	160-011	2371

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EXAMINER

EWART, JAMES D

ART UNIT PAPER NUMBER

2617

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/10/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/781,228

Applicant(s)

BACKES ET AL.

Examiner

James D. Ewart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006 amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-3 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response to Arguments

1. The applicant's arguments filed October 10, 2006, have been fully considered by the Examiner, but are not persuasive. Applicant argues that Soomro et al does not teach the limitation of "a message indicative of an *intent* to utilize the selected channel", Examiner disagrees. Intent is defined as purpose: an anticipated outcome that is intended or that guides your planned actions. As shown in figure 3C of Soomro et al is step 320 all stations move to the new channel at the announced time and the next step 321 the owner station, which is, the access point (see 0029) sends out a beacon. The beacon is sent out and provides an indication of the intent to utilize the selected channel see figure 2 and 0029. As discussed in 0027, the beacon occurs on the channel to be used and provides operational information in which the AP intends to use on the selected channel and states: "the bodies of beacon and probe response frames contain similar elements including a timestamp, a beacon interval, capability information, service set identification (SSID), an identification of supported rates, a frequency-hopping (FH) parameter set in frames from stations utilizing frequency-hopping physical (PHY) layer, a direct sequence (DS) parameters in frames from stations utilizing direct sequence physical (PHY) layer, a contention free (CF) parameter set in frames from access points supporting point coordination function (PCF), and an independent basic service set parameter set in frames from stations within an IBSS network." The Examiner equates this beacon with a message providing intent to use the channel. In addition, as claimed in claim 1, the message is sent prior to utilizing the selected channel. The Examiner is not referring to the message indicating a switch from channel Y to the channel X, but the beacon that occurs providing operational information on the channel that is to

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be used for communication. Also see McFarland et al. U.S. Patent Publication 2004/0151137 0008 and Figure 4.

Terminal Disclaimer

2. The terminal disclaimer filed on 18 October 2006 disclaiming the terminal portion of any patent granted on this application has been reviewed and is accepted. The terminal disclaimer has been recorded.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda (U.S. Patent No. 5,606,727) in view of Soomro et al. (US Patent Publication no. 2003/0002456).

Referring to claim 1, Ueda teaches an apparatus for use in a wireless network (Column 1, Lines 8-20) comprising: a device that is capable of automatically selecting one of a plurality of radio frequency channels for communication (Column 3, Lines 24-30), wherein the selection of a radio frequency channel is performed such that radio frequency interference with other devices is reduced (Column 3, Lines 24-30); wherein prior to utilizing the selected channel for normal communications (Figure 4, S6-S13) the selection of a radio frequency channel is communicated

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on the selected channel a message indicative of an intent to utilize the selected channel (Figure 4, S13 and Column 6, Lines 55-60), but does not teach communicating with other devices on a single channel and communicating the selection of a radio frequency channel to other devices on the selected channel. Soomro et al. teaches communicating with other devices on a single channel (0025 – 0026) and communicating the selection of a radio frequency channel to other devices on the selected channel (0025-0026). Therefore at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the teaching of Ueda with the teaching of Soomro et al. of communicating with other devices on a single channel (0025 – 0026) and communicating the selection of a radio frequency channel to other devices on the selected channel to provide dynamic frequency selection (0007)

Allowable Subject Matter

4. Claims 2-3 allowed. The reason for allowable subject matter is provided below:

Referring to claim 2, the references cited do not teach an apparatus operable to select an operating channel in a wireless network comprising: circuitry operable to scan each of a plurality of radio frequency channels during a scan interval for indication of utilization of ones of the channels; circuitry operable to receive messages on the plurality of radio frequency channels during the scan interval; memory operable to maintain a channel map having an entry for each of the plurality of radio frequency channels, and if one or more messages was received on a channel, the corresponding entry further including a device ID for at least one of the devices that sent a message on the channel; circuitry operable to select a channel from the channel map based

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at least in-part on whether an indication of utilization of the selected channel was detected; circuitry operable to transmit messages on the selected channel during a claim interval, at least one message indicative of an intent to utilize the selected channel; circuitry operable to monitor messages on the selected channel during the claim interval for a message from another device indicative of an intent to utilize the selected channel; and circuitry operable to ascertain whether the wireless device should commence communications with other devices on the selected channel based upon characteristics of any messages received on the channel.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James D. Ewart whose telephone number is (571) 272-7864. The

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examiner can normally be reached on M-F 7am - 4pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571)272-7872. The fax phone numbers for the organization where this application or proceeding is assigned are (571) 273-8300 for regular communications and (571) 273-8300 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-2600.



James Ewart
January 2, 2007



WILLIAM TROST
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